

ABSTRACT OF THE DISCLOSURE

APPROXIMATION OF THE WEIGHTED RANDOM  
EARLY DETECTION BUFFER ADMITTANCE ALGORITHM

An apparatus for storing a packet. The apparatus comprises a buffer in which packets are stored. The apparatus comprises a mechanism for determining an average buffer fill of the buffer, where the average buffer fill is an average fill state of the buffer. The determining mechanism is connected to the buffer. The apparatus comprises a mechanism for calculating a drop probability associated with the packet which identify is the probability the packet will be dropped from a the buffer. The apparatus comprises a mechanism for generating a random number. The apparatus comprises a mechanism for discarding the packet from the elements if the drop probability is greater in than the random number. A method for access control. The method comprises the steps of receiving a packet at an element having a buffer. Then there is the step of determining if an average buffer fill of the buffer in which the packet is to be stored is greater than a minimum threshold and less than a maximum threshold, where the average buffer fill is an average fill state of the buffer. Next there is the step of calculating a drop probability associated with the packet which identifies a probability the packet will be dropped from the element. Then there is the step of comparing the drop probably to a random number. Next there is the step of discarding the packet from the element if the drop probability is greater than the random number.